

WHAT IS CLAIMED IS:

1. A data transmission device for hearing aids, comprising:  
a modulatable oscillator circuit configured for generating an alterable transmission signal; and  
an antenna device for radiating the transmission signal;  
the oscillator circuit comprising a coil device that is used as a transmission and reception antenna device.
2. The data transmission device as claimed in claim 1, wherein the oscillator circuit comprises an LC resonant circuit.
3. The data transmission device as claimed in claim 1, further comprising:  
an actuation circuit having a feed for delivering an adjustable amount of energy into the oscillator circuit exclusively during a negative or positive half-cycle of the oscillation in the oscillator circuit .
4. The data transmission device as claimed in claim 3, wherein the actuation circuit further comprises a current mirror that is actuated by a comparator circuit that monitors the polarity of the oscillation.
5. The data transmission device as claimed in claim 4, wherein the actuating current mirror comprises a control to control the transmission power that is to be output and the oscillation amplitude. .
6. The data transmission device as claimed in claim 1, further comprising a modulator circuit that is connected to the oscillator circuit and comprises a

connectable capacitor element, configured for frequency modulating an oscillation in the oscillator circuit.

7. The data transmission device as claimed in claim 1, further comprising a trimming device that is connected to the oscillator circuit, configured for trimming the resonant frequency of the oscillator circuit.

8. The data transmission device as claimed in claim 7, wherein the trimming device comprises one or more connectable capacitors.

9. The data transmission device as claimed in claim 4, wherein the current mirror further comprises an actuation signal configured to help produce an amplitude modulation.

10. The data transmission device as claimed in claim 9, further comprising a modulator circuit that is connected to the oscillator circuit and comprises a connectable capacitor element, configured for frequency modulating an oscillation in the oscillator circuit.

11. The data transmission device as claimed in claim 9, further comprising a trimming device that is connected to the oscillator circuit, configured for trimming the resonant frequency of the oscillator circuit.